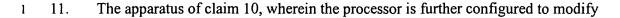
## **CLAIMS:**

- 1 1. A method of operating a network device, comprising:
- receiving electronic data from a first port of the data networking device;
- deleting at least a portion of the electronic data prior to providing the electronic
- 4 data to the memory of the networking device;
- 5 providing at least a portion of the electronic data to a second port.
- 1 2. The method of claim 1, further comprising modifying the electronic data prior to
- 2 said providing.
- 1 3. The method of claim 1, wherein the electronic data comprise a frame.
- 1 4. The method of claim 1, wherein the portion of electronic data deleted comprises a
- 2 VLAN (virtual local area network) tag.
- 1 5. The method of claim 3, wherein modifying comprises inserting a VLAN tag to the
- 2 frame.
- 1 6. The method of claim 3, further comprising generating a CRC (cyclic redundancy
- 2 code) and inserting the CRC into the frame prior to providing to the memory.

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- The method of claim 1, further comprising providing a portion of the electronic
- 2 data to a control module prior to deleting a portion of the electronic data.
- 1 8. The method of claim 7, wherein the portion of data provided to the control
- 2 module comprises the protocol header.
- 1 9. The method of claim 1, wherein the first port and the second port comprise a
- 2 receive port and a transmit port, respectively.
- 1 10. An apparatus, comprising:
- one or more receive ports capable of receiving electronic data from a network;
- one or more transmit ports capable of transmitting electronic data to a network;
- 4 a memory; and
- a processor, the processor configured to, in operation:
- 6 delete at least a portion of the electronic data received by the one or more receive
- 7 ports;
- 8 provide the remaining electronic data to the memory;
- 9 read the electronic data from the memory;
- modify the electronic data after reading from the memory; and
- provide at least a portion of the electronic data to one or more of the transmit
- 12 ports.



- 2 the electronic data prior to providing at least a portion of the electronic data to one or
- 3 more of the transmit ports.
- 1 12. The apparatus of claim 10, wherein the apparatus comprises a network switch.
- 1 13. The apparatus of claim 12, wherein said memory comprises network switch
- 2 internal memory.
- 1 14. The apparatus of claim 10, wherein said portion of electronic data deleted
- 2 substantially comprises a VLAN tag.
- 1 15. The apparatus of claim 11, wherein modifying the electronic data comprises
- 2 inserting a VLAN tag, wherein the VLAN tag relates at least in part to the destination
- 3 address of the electronic data.
- 1 16. The apparatus of claim 10, wherein the processor comprises a network
- 2 processor.
- 1 17. The apparatus of claim 10, wherein the memory comprises a plurality of memory
- 2 devices.

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- 1 18. The apparatus of claim 17, wherein the plurality of memory devices comprise one
- 2 or more of: random access memory, static random access memory, and synchronous
- 3 dynamic random access memory.
- 1 19. A system for network data communication, comprising:
- a first port to receive electronic data from a network;
- a second port to transmit electronic data to a network;
- a memory to store electronic data; and
- a processor coupled to the first port, second port, and the memory, wherein the
- 6 processor is configured to, in operation, delete at least a portion of electronic data
- 7 received on a first port, provide at least a portion of the electronic data to the memory,
- and modify the electronic data prior to providing at least a portion of the electronic data
- 9 to the second port.
- 1 20. The system of claim 19, wherein the electronic data comprise a frame.
- 1 21. The system of claim 19, wherein the portion of electronic data deleted comprises
- 2 a VLAN (virtual local area network) tag.
- 1 22. The system of claim 20, further comprising generating a CRC (cyclic redundancy
- 2 code) and inserting the CRC into the frame prior to providing to the memory.

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- 1 23. The system of claim 19, wherein modifying the electronic data comprises
- 2 inserting a VLAN tag, wherein the VLAN tag relates at least in part to the destination
- 3 address of the electronic data.
- 1 24. The system of claim 19, wherein the processor comprises a network processor.
- 1 25. The system of claim 19, wherein the memory comprises a plurality of memory
- 2 devices.
- 1 26. The system of claim 25, wherein the plurality of memory devices comprise one or
- 2 more of: random access memory, static random access memory, and synchronous
- 3 dynamic random access memory.
- 1 27. The system of claim 19, wherein said processor is configured to modify said
- 2 electronic data only if said second port is configured to recognize tags.

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